

WHAT IS CLAIMED IS:

- 1        1. In a casing for endoscopic manipulating head assembly, said
- 2        casing being formed of a synthetic resin material and largely
- 3        constituted by a main cover section and a grip cover section, said main
- 4        cover section being adapted to support thereon an operating member
- 5        of an angulation control mechanism, and said grip cover section being
- 6        projected forward from said main cover section to provide a grip portion
- 7        between said main cover section and an insertion tube of said
- 8        endoscope:
  - 9              a rigid support plate provided mostly within said main section
  - 10          and partly in said grip cover section to support said angulation control
  - 11          mechanism;
- 12          a plural number of passage-forming tubular structural members
- 13          successively connected one after another within said grip cover section
- 14          for passing internal components to or from said insertion tube of said
- 15          endoscope, a tubular member at the proximal end of said grip cover
- 16          section being connected to said rigid support plate;
- 17          a first anti-twist lock portion for blocking rotational movements
- 18          of said grip cover section relative to said main cover section, formed by

19        said support plate between said main cover section and a proximal end  
20        of said grip cover section connected to said main cover section; and  
21                  a second anti-twist lock portion formed between a joint portion of  
22        said tubular members and said grip cover section of said casing.

1                  2. A casing for endoscopic manipulating head assembly as  
2        defined in claim 1, wherein a passage is formed in and through said  
3        grip cover section by successively connecting three tubular structural  
4        members, including a first tubular member being connected to said  
5        support plate at a proximal end thereof and connected a second  
6        tubular member at a fore end thereof through a reinforcing ring, and  
7        said second tubular member having a fore end portion thereof inserted  
8        in a proximal end portion of a third tubular member.

1                  3. A casing for endoscopic manipulating head assembly as  
2        defined in claim 2, wherein said first to third tubular members as well  
3        as said support plate is formed of a light metal, and said reinforcing  
4        ring between said first and second tubular members is of stainless  
5        steel.

1           4. A casing for endoscopic manipulating head assembly as  
2       defined in claim 3, wherein said first to third tubular members as well  
3       as said support plate is formed of aluminum or an aluminum alloy.

1           5. A casing for endoscopic manipulating head assembly as  
2       defined in claim 1, wherein said first anti-twist lock portion is formed  
3       by placing opposite side edge portions of said support plate in a pair of  
4       axial grooves provided on inner surfaces of said main and grip cover  
5       sections of the casing.

1           6. A casing for endoscopic manipulating head assembly as  
2       defined in claim 1, wherein said second anti-twist lock portion is  
3       formed by an axial groove provided on a large diameter portion at a  
4       fitting joint portion of said tubular structural member, and an axial  
5       protuberance or rib provided on an inner surface of said grip cover  
6       section for tight fitting engagement with said axial groove.